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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/698,204	08/14/96	KONUMA T	8756-1583

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EXAMINER
PARKER, K

ART UNIT	PAPER NUMBER
2871	22

DATE MAILED: 03/04/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.
08/698,204

Applicant(s)
Konuma

Examiner
Kenneth Parker

Group Art Unit
2871



☒ Responsive to communication(s) filed on Dec 4, 1998

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 12-15, 17-22, and 24-44 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☒ Claim(s) 43 and 44 is/are allowed.

☒ Claim(s) 13-15, 18-22, and 24-42 is/are rejected.

☒ Claim(s) 12 and 17 is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☒ received in Application No. (Series Code/Serial Number) 08/301,744

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 15 1/2

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title; if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawatsubashi et al 5148301 in view of Niki, U.S. patent # 5,278,682.

Swatsubashi et al discloses a liquid crystal device with a first substrate 101, second substrate 102, active devices in an active display region 104, driver circuits 113, and a sealing member 108, which at least partly covers the circuits, seals the liquid crystal, and which may optionally completely cover the circuits (spec). The left side is shown with the edges of the sealant and substrates at least substantially aligned. The only differences presented in these claims are the sealant being a UV curable adhesive, a conventional practice which offers the benefit of enabling selection of the time of curing and patterning, the circuits on both the driving section formed using the same processes as those in the display section, which was one of the principal motivations for the prior art to employ both on the same substrate in the first place, and the liquid crystal fill port at the side where the substrates are aligned. The use of common processes saves cost and the UV curing enables low cost simple fabrication. Therefore, it would

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have been obvious, in the device of Sawatsubashi et al, to use a UV curable adhesive to enable patterning and simple low cost fabrication, and to use common processes for both circuit regions to save cost.

The use of a fill port at the aligned edges was disclosed by Niki, stating the advantage of enabling filing without immersing the substrates in the reservoir (abstract). Therefore it would have been obvious, in the device of Sawatsubashi et al, to employ a fill port at the aligned sides for the benefit of avoiding immersion of the substrates.

Claims 13-24, and 40-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuo, Japanese Koki 64-49022 in view of Niki, U.S. patent # 5,278,682..

Matsuo discloses a liquid crystal device with first substrate, and active matrix substrate with pixels in a matrix, driver circuits comprising TFTs, second substrate, liquid crystal between the substrates a resin material covering the driver circuits, and a sealer around the liquid crystal and driver circuits. See figure 1. The abstract portion does not disclose the active matrix of Matsuo as matrix arranged TFTs, although it can essentially be deduced from the language as it was conventional, further, it would have been obvious as it was conventional. Also not clearly disclosed is the presence of an "inlet", however, the materials must have been introduced to the device, so somewhere, on something there must have been an inlet, or it would have been obvious to employ an inlet to enable control of the introduction of the materials.

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The use of a fill port at the aligned edges was disclosed by Niki, stating the advantage of enabling filing without immersing the substrates in the reservoir (abstract). Therefore it would have been obvious, in the device of Matsuo, to employ a fill port at the aligned sides for the benefit of avoiding immersion of the substrates.

Providing with active matrix as amorphous silicon and the driver crystalline was well established, as the driver section is often the only one that requires the higher speed requiring crystalline silicon. The employment of and MIM diode was well known in the art as a lower cost alternative to tft's, and epoxy and UV curing resins is essentially a complete list of the conventionally use materials, used for low cost, ease of assembly or the ability to pattern. It was well known to employ spacers in the sealing materials on liquid crystal devices to enable even spacing without stress forces related to omitting them.

Allowable Subject Matter

Claims 43 and 44 are allowed.

Double Patenting

Claims 12 and 17 are objected to under 37 CFR 1.75 as being a substantial duplicate of claims 43-44; see applicant's comments in amendment E, page 10. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

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Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection. The sole argument presented and therefore the sole issue in this application with regards to claims up to claim 42 is the issue of the inlet being at the side where the substrates are aligned. As this feature was taught by Niki, a new ground of rejection has accordingly been presented.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Parker whose telephone number is (703) 305-6202.

The fax phone number for this Group is (703) 308-7726.

Any inquiry of a general nature or relating to the status of this application or preceding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

February 28, 1999


Kenneth Parker
PATENT EXAMINER
GROUP ART UNIT 2871